

Work Order ID 128724

Thursday, January 22, 2015 1:41:43 PM

128724

Page 1

Item ID: 41228-202-136-001

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Mounting Bkt./Thermistor Lead Assy

Start Date: 1/26/15

Start Qty: 1.00

1

Cust Item ID:

Required Date: 2/06/15

Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

41228-202-136

A1

110

0.00

110

Small Fab

Memo

0.00

Small Fab

MANUFACTURE AS PER DWG'S

1 / KC 15-01-23

120

QC5- Inspect part completeness to step on W/O

0.00

120

QC

Memo

0.00

Quality Control

DAS
38
9-89

JAN 26 2015

130

Identify as per dwg & Stock Location:

0.00

130

Packaging

Memo

0.00

Packaging

1X SP 15-01-27

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

Work Order ID 128724

Thursday, January 22, 2015 1:41:43 PM

128724

Page 2

Item ID: 41228-202-136-001

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Mounting Bkt./Thermistor Lead Assy

Start Date: 1/26/15 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 2/06/15 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140

QC21- Final Inspection - Work Order Release

0.00

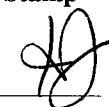
140

QC

Memo

0.00

Quality Control

15/1/27 mf
15-1-27

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

Picklist Print

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Page 1

Work Order ID: 128724

128724

Parent Item: 41228-202-136-001

41228-202-136-001

Parent Item Name: Mounting Bkt./Thermistor Lead Assy

Start Date: 1/26/15

Required Date: 2/06/15

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 14.07.31 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

NAS1149DN432J

Purchased

No

Each

158.0000

2

NAS1149DN432J

KC 15-01-23

WASHER

Location

Loc Qty

Loc Code

CA

100

m129682

100

ST270

58

m129022

58

2

MS21042L04

Purchased

No

Each

200.0000

1

MS21042L04

KC 15-01-23

NUT

Location

Loc Qty

Loc Code

CA

55

M129682

55

ST305

145

125653

145

1

MS35206-216

Purchased

No

Each

90.0000

1

MS35206-216

KC 15-01-23

SCREW

Location

Loc Qty

Loc Code

CA

90

M129682

90

1

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
--	--	---

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

Thursday, January 22, 2015 1:41:49 PM

Work Order ID: 128724

128724

Parent Item: 41228-202-136-001

41228-202-136-001

Parent Item Name: Mounting Bkt./Thermistor Lead Assy

Start Date: 1/26/15

Required Date: 2/06/15

Start Qty: 1.00

Required Qty: 1.00

41228-202-090-001

Manufactured

No

Each

9.0000

1

41228-202-090-001

412 Mounting Bracket

Ke

Location

Loc Qty

Loc Code

CA

9

m129682

9

Each

11.0000

1

Ke

41228-400-010-001

Manufactured

No

41228-400-010-001

412 Thermistor Harness Assembly

Location

Loc Qty

Loc Code

CA

11

m129682

11

1

DQA:

Just

Date:

15/04/02

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed:

Date:

Work Order update only



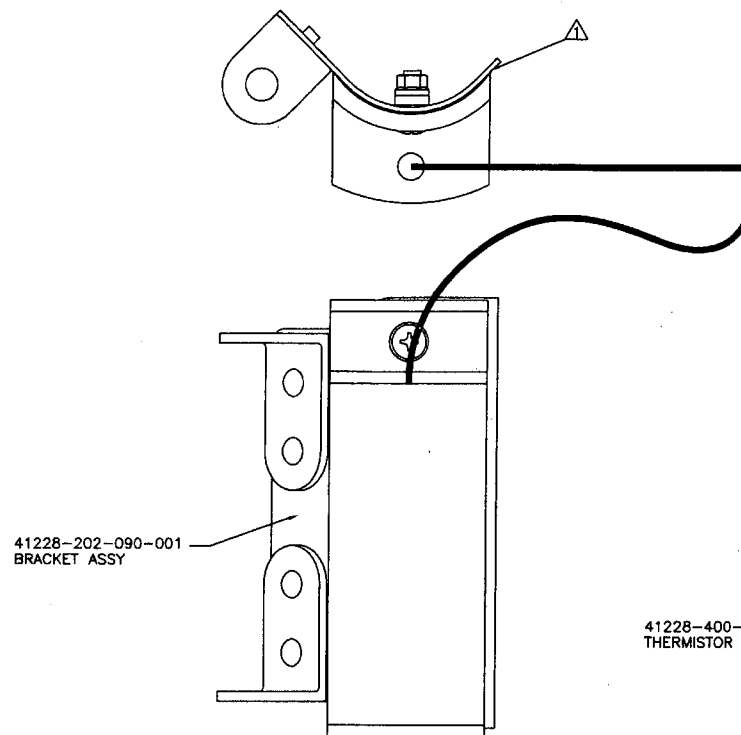
Work Order: <u>128724</u>	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS			
Part No. <u>41228-202-136-001</u>		Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. _____		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
		Large Fab ☐	Composite ☐	Supplier ☐	

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	15.01.23	110	1	DISCREPANCY BETWEEN DWG BOM AND DWG	A.P. 15.01.23	QTY OF AN960304 SHOULD BE QTY 2, ENSURE 1.5-4 THREADS PAST NUT (IN SAFETY) <i>See attached E-MAIL</i>	<i>See attached E-MAIL</i> 15-01-29 1501-29	DAS 9 9-89	DAS 9 9-89 15-01-29
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge	☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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REVISION							
LETTER	DFTSMAN	DATE	DESCRIPTION			APPROVED	DATE
A	DNN	6/13/05	INCORP. E.O. A-1: CHG. 41228-202-090-003 BRACKET TO 41228-202-090-001 BRACKET ASSY ON L/M.				
MINOR CHANGE - FAR 21.95							



41228-400-010-001
THERMISTOR LEAD ASSY

MS35206-216 SCREW (1)
AN960JD4 WASHER (4)
MS21042L04 NUT (1)

QTY 2 PER DWG 1304
A.P. 15.01.23

UNINCORPORATED ECN(s)

01929

AR	CB-200	ACRYLIC ADHESIVE CARSON CITY, NV.				
1	MS21042L04					
2	AN960JD4					
1	MS35206-216					
2	41228-400-010-001	LEAD ASSY				
1	41228-202-090-001	BRACKET ASSY				
	41228-202-136-001	ASSY.				
-001	PART NO.	NAME	STOCK SIZE	MATERIAL	MATL.SPEC.	ZONE
NO. REQ'D PER ASSY.						
LIST OF MATERIAL						
PROPRIETARY RIGHTS NOTICE THESE DATA ARE PROPRIETARY TO ERA AVIATION, INC. INCLUDING, BUT NOT LIMITED TO, THE DESIGN, CONSTRUCTION, OR USE OF THESE DATA FOR ANY PURPOSE IS PROHIBITED WITHOUT WRITTEN AUTHORIZATION FROM ERA AVIATION, INC. THE FOREGOING DOES NOT APPLY TO VENDOR PARTS.		UNLESS OTHERWISE SPECIFIED	DFTSMAN	T. HARVILLE	8/25/94	TITLE
		CHECK				MOUNTING BRACKET & THERMISTOR LEAD ASSY
		STRESS				
		PRDL ENGR.				
-001 2 41228-202-133		XXX ± .01	HEAT TREAT			DWG. NO.
NEXT ASSEMBLY		ANGLES ±	FINISH			41228-202-136
				Era Helicopters LLC		REV. A

△ ATTACH LEAD ASSY TO BRACKET IN POSITION AS SHOWN USING CLICK BOND ADHESIVE & HARDWARE LISTED.

NOTE:

Jean-Luc Menard

From: Roberto Fuentes
Sent: January-29-15 9:18 AM
To: Jean-Luc Menard; Harvey Siemens
Cc: David Duval; Kim Johnston
Subject: RE: 41228-202-136

JL,

Follow up to our conversation to the (qty 4) of AN960J4 washer shown in the 41228-202-136 Rev. A drawing, it is rectify for (qty 2) on ECN 01928 issue by Apical.

Roberto

From: Jean-Luc Menard
Sent: January-29-15 6:10 AM
To: Roberto Fuentes; Harvey Siemens
Cc: David Duval; Kim Johnston
Subject: FW: 41228-202-136

Roberto/Harvey,
Here is another Dwg one to change for the tank.
Sorry I tried to get Apical to do it since they were the last ones to revise it.
See below for the details,
JL

From: Jason Gardiner
Sent: January-28-15 5:25 PM
To: Jean-Luc Menard
Cc: Pablo Bravo
Subject: RE: 41228-202-136

JL,

Looks like in quantum there are only two so this is what would have been pulled when we built it. I believe 2 is correct. The ECN should be handled in Hawkesbury. A new ecn needs to be created for the change.

Jason

From: Pablo Bravo
Sent: Wednesday, January 28, 2015 5:29 AM
To: Jason Gardiner
Subject: Fw: 41228-202-136

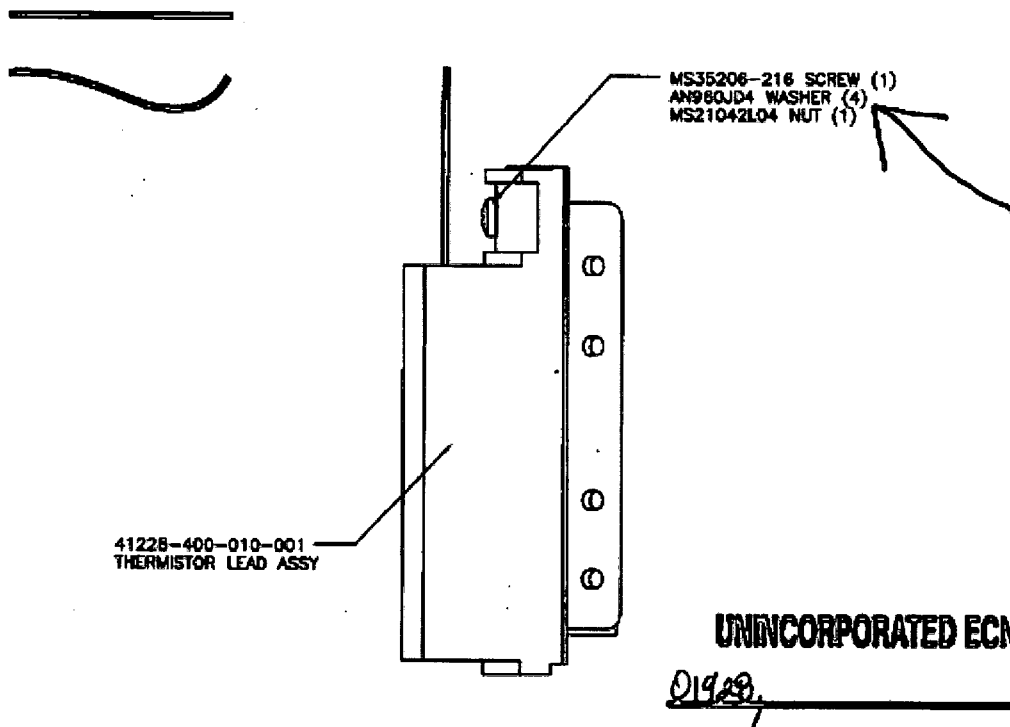
Do you mind taking a look at this one. when you have a chance?

Thanks,

Pablo

From: Jean-Luc Menard
Sent: Wednesday, January 28, 2015 5:24 AM
To: Pablo Bravo
Cc: David Duval
Subject: 41228-202-136

Hi Pablo,
 Could you let me know which one is correct, 2 or 4 washers, I will issue an ecr shortly after since you guys have already have an ECN attached to this dwg.
 THX
 JL



	AR	CB-200	ACRYLIC ADHESIVE CARSON CITY, NV.		
	1	MS21042L04			
	(2)	AN980JD4			
	1	MS35206-216			
	2	41228-400-010-001	LEAD ASSY		
	1	41228-202-090-001	BRACKET ASSY		
		41228-202-136-001	ASSY		

Jean-Luc Ménard
 Production Engineering Supervisor

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